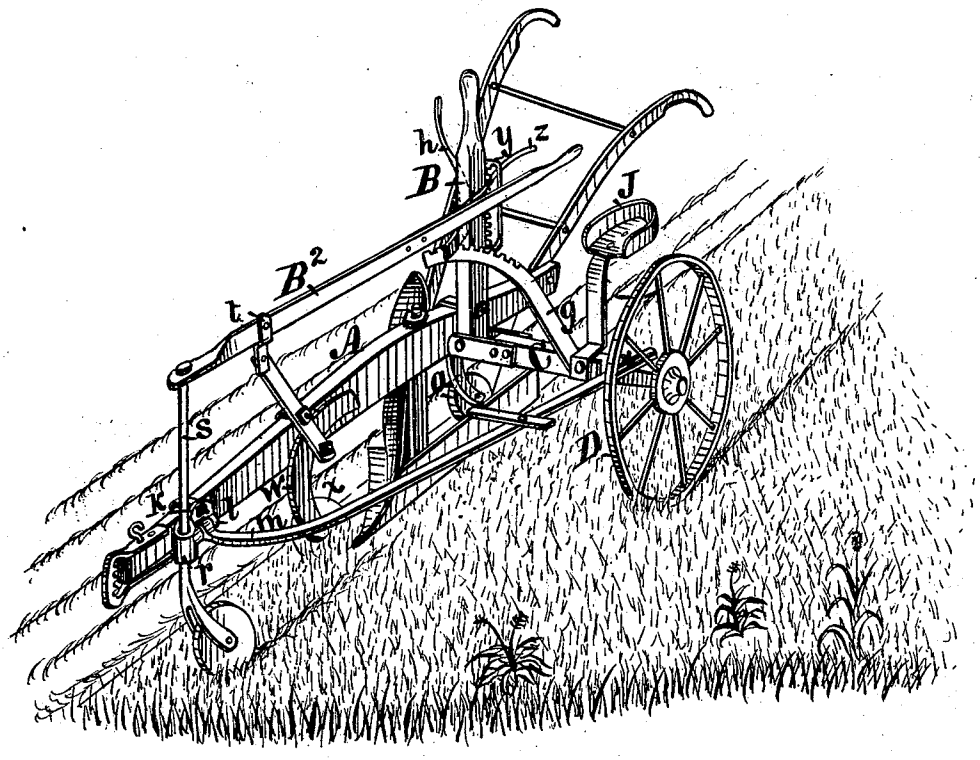
J. McBRIDE.
Plow-Attachment.

No. 199,082. Patented Jan. 8, 1878.



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UNITED STATES PATENT OFFICE.

JOHN McBRIDE, OF DES MOINES, IOWA.

IMPROVEMENT IN PLOW ATTACHMENTS.

Specification forming part of Letters Patent No. **199,082**, dated January 8, 1878; application filed March 17, 1877.

To all whom it may concern:

Be it known that I, JOHN McBRIDE, of Des Moines, Iowa, have invented an Improved Riding Attachment for Plows, of which the following is a specification:

My invention relates to that class of plow attachments designed as a means of carrying a plowman in such position relative to a plow that his weight will aid in making the plow run smoothly and evenly without increasing the draft and labor of the horses, and that he may, by simply adjusting levers at his side, readily govern the width and depth of the furrow, and plow a field uniformly with a common plow without walking.

It consists in a combined rack and fender fixed to a vertical lever, and an adjustable jointed fulcrum, adapted to carry a horizontal lever and to clamp a colter to the plow-beam, being used as an improved means for advantageously combining a horizontal hinged axle, carrying a wheel and a segmental rack to govern the width of the furrow cut by the plow, and a horizontal lever carrying a caster-wheel at its front end to govern the depth of the plow, all as hereinafter fully set forth.

My drawing is a perspective view illustrating the construction and operation of my improved attachment.

A represents the beam of a common right or left hand plow. B is a vertical lever, rigidly clamped to the rear portion of the plow-beam by means of bolts, or in any suitable way. C is a horizontal axle, hinged at right angles to the lower end of the vertical lever B. D is a traction-wheel, mounted upon the free end of the hinged axle C. *g* is a rack, of segmental form, rigidly fixed to the outer portion of the axle C, to connect with the vertical lever B, and serve as a means of bracing the axle and adjusting it, as required, to govern the width of the furrow cut by the advancing plow. *h* is the handle of a gravitating-latch, pivoted to the vertical lever B, to engage and lock the rack *g* and axle C rigidly to the lever B. J is the plowman's seat, carried by the axle C and its supporting-wheel D. *k* is a combined brace-hinge and caster-shaft bearing, rigidly fixed to the front end of the plow-beam in any suitable way. *m* is the curved front end of an axle-brace, connected with the hinge *k* in such a manner that the rear end of the brace can have vertical play. The rear end of the brace *m* is connected with the axle C in such a manner that it can be readily lengthened and shortened to regulate the gather of the wheel D, and thereby aid in governing the width of furrow.

r is a caster-shaft bearing, formed integral with the hinge-plate *k*, clamped to the front end of the plow-beam. *s* is the vertical shaft of a caster-wheel, passed through the bearing *r*, and connected at its top end with an adjustable and horizontal lever, B^2. *t* is my adjustable and jointed fulcrum, carrying the lever B^2, and also clamping the colter *w x* rigidly to the plow-beam.

I am aware that a lever used to govern the depth of a plow has been supported upon a fulcrum pivoted to the plow-beam; but by means of my jointed fulcrum I can use it to support the lever, and also to clamp the colter. The joint allows the fulcrum to adapt itself to the changed positions it may be made to occupy on the beam in adjusting the colter relative to the point of the plow.

y is my combined rack and fender, rigidly fixed to the vertical lever B, to combine, adjust, and lock the two levers B and B^2 rigidly together. *z* is a spring-latch, carried by the lever B^2, to engage the rack *y*, and thereby lock the lever in a fixed position, as required, to retain the caster-wheel carried at its front end at such various elevations relative to the plow-beam as may be necessary to govern the depth of the plow and the thickness of the furrow-slice cut loose and turned by the plow as it advances. *a* is an anti-friction roller or caster-wheel, carried by a bearer, that is rigidly clamped to the beam in such position relative to the heel of the land-side that it will relieve the land-side from much friction, and thereby lessen the draft-power required to operate the plow.

I claim as my invention—

1. In combination with the plow-beam and hinged axle, the lever B, having the combined rack and fender *y*, and lever B^2, provided with the spring-latch *z*, substantially as and for the purposes shown and described.

2. The adjustable and jointed fulcrum *t*,

adapted to support the lever B^2 and to clamp the colter *w x* to the plow-beam, substantially as shown and described.

3. The vertical lever B, having the combined rack and fender *y* and the gravitating-latch *h*, the hinged axle C, carrying the wheel D and rack *g*, the jointed fulcrum *t*, clamping the colter *w x*, the horizontal lever B^2, having a spring-latch at its rear end, and carrying a caster-wheel at its front end, and the hinged and adjustable brace *m*, when arranged and combined to operate substantially as and for the purposes shown and described.

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